



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/538,785	06/10/2005	Dai Shinozaki	04329-3573	4335

22852 7590 05/03/2006

FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER  
LLP  
901 NEW YORK AVENUE, NW  
WASHINGTON, DC 20001-4413

EXAMINER
----------

VAZQUEZ, ARLEEN M

ART UNIT	PAPER NUMBER
----------	--------------

2829

DATE MAILED: 05/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/538,785

**Applicant(s)**

SHINOZAKI ET AL.

**Examiner**

Arleen M. Vazquez

**Art Unit**

2829

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06/10/2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 June 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 06/05.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Drawings*

1. Figure 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the power supplies and switching mechanisms must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate

changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

3. Claims 1-3 and 5-7 are objected to because of the following informalities:

In claim 1, it is not clear where the "power supplies" are located. It is not clear what a "fritting phenomenon" comprises of. It is not clear which device or element is "applying an inspection signal to the electrodes". Therefore these limitations are considered as indefinites.

In claim 2 and 6, it is not clear how "respective drivers applying a voltage to the respective electrodes" is performed. Where are the power supplies in order to give the power to the drivers? Is this limitation shown in the drawings? Therefore this limitation is considered as indefinite.

In claims 3 and 7, it is not clear what "one process included in a process of simultaneously applying the voltage to the electrodes, and a process of sequentially applying the voltage to the electrodes" comprises of. Therefore this limitation is considered as indefinite.

In claim 5, it is not clear where the "power supplies" are located. It is not clear what a "fritting phenomenon" comprises of. Therefore these limitations are considered as indefinites.

In claim 7, it is not clear where the "switch mechanisms" are located. Therefore this limitation is considered as indefinite.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by

#### ***Applicant's Admitted Prior Art of Figure #2.***

As to claim 1, ***Applicant's Admitted Prior Art of Figure #2*** discloses bringing a pair of probe pins (2) into contact with respective electrodes (P) of at least one to-be-inspected object, applying a voltage (applied when switches of relay 3 are in position to connect with power supplies 5) to the respective inspection electrodes via the pairs of probe pins (2) by power supplies (5) connected to the respective pairs of probe pins (2), thereby causing a fritting phenomenon to occur between tips of each pair included in the pairs of probe pins (2), and applying an inspection signal (when switches of relay 3 are in position to connect the tester 4) to the electrodes (P) of the to-be-inspected object via

Art Unit: 2829

the pairs of probe pins (2), thereby inspecting an electrical characteristic of the to-be-inspected object.

As to claim 2, ***Applicant's Admitted Prior Art of Figure #2*** discloses inspecting the electrical characteristic of the to-be-inspected object is performed by a tester circuit (4), the tester circuit (4) transmitting the inspection signal (transmitted when switches of relay 3 are in position to connect the tester 4) via respective electrical connection lines (lines disposed between the tester (4) and the probe pins (2)) connecting the tester circuit (4) to the respective probe pins included in the pairs of probe pins (2), and the power supplies (5) are formed of the respective drivers provided in the tester circuit (4), respective drivers applying a voltage (applied when switches of relay 3 are in position to connect with power supplies 5) to the respective electrodes (P) via the electrical connection lines and the respective pairs of probe pins (2).

As to claim 3, ***Applicant's Admitted Prior Art of Figure #2*** discloses wherein the applying the voltage (applied when switches of relay 3 are in position to connect with power supplies 5) by the power supplies (5) which is connected to the respective pairs of probe pins (2) to the respective electrodes (P) via the respective pairs of probe pins (2) includes one process included in a process of simultaneously applying the voltage (applied when switches of relay 3 are in position to connect with power supplies 5) to the electrodes (P), and a process of sequentially applying the voltage (applied when switches of relay 3 are in position to connect with power supplies 5) to the electrodes (P).

As to claim 4, ***Applicant's Admitted Prior Art of Figure #2*** discloses when the voltage applied (applied when switches of relay 3 are in position to connect with power supplies 5) by the power supplies (5) to the respective electrodes (P) reaches a predetermined limit value, when a current resulting from the voltage shows a predetermined change, or when the current shows a predetermined change, application of the voltage (applied when switches of relay 3 are in position to connect with power supplies 5) to the electrodes (P) is stopped.

As to claim 5, ***Applicant's Admitted Prior Art of Figure #2*** discloses a pair of probe pins (2) to be brought into contact with respective electrodes (P) of at least one to-be-inspected object, power supplies (5) connected to the respective pairs of probe pins (2) to apply a voltage (applied when switches of relay 3 are in position to connect with power supplies 5) to the respective electrodes (P), a fringing phenomenon occurring between tips of each pair included in the pairs of probe pins (2), as a result of application of the voltage, and a tester (4) which transmits, after the fringing phenomenon an inspection signal (when switches of relay 3 are in position to connect the tester 4) to the electrodes (P) of the to-be-inspected object, thereby inspecting an electrical characteristic of the to-be-inspected object.

As to claim 6, ***Applicant's Admitted Prior Art of Figure #2*** discloses a tester (4) which transmits an inspection signal (when switches of relay 3 are in position to connect the tester 4) to the electrodes (P) of the to-be-inspected object, thereby inspecting an electrical characteristic of the to-be-inspected object, pairs of probe pins (2) to be brought into contact with the respective electrodes (P), electrical connection

Art Unit: 2829

lines (lines disposed between the tester (4) and the probe pins (2)) connecting the tester to the respective electrodes (P), a plurality of drivers (located on tester 4) provided in the tester circuit (4), the drivers (located on tester 4) being connected to the respective pairs of probe pins (2) to apply a voltage to the respective electrodes (P), and wherein the electrical connection lines (lines disposed between the tester (4) and the probe pins (2)) transmits the inspection signal from the tester (4) and the voltage from the drivers (applied when switches of relay 3 are in position to connect with power supplies 5) to the respective electrodes (P) of the to-be-inspected object.

As to claim 7, ***Applicant's Admitted Prior Art of Figure #2*** discloses a switch mechanism (3) provided between the respective drivers (located inside tester 4) and the respective pairs of probe pins (2), the switch mechanism (3) being voltages switching mechanism which enable one process included in a process of simultaneously applying the voltage (applied when switches of relay 3 are in position to connect with power supplies 5) to the electrodes (P); and a process of sequentially applying the voltage (applied when switches of relay 3 are in position to connect with power supplies 5) to the electrodes (P).

As to claim 8, ***Applicant's Admitted Prior Art of Figure #2*** discloses comparators (drivers of tester 4 having their inputs connected to the electrical connection lines) connected between the respective drivers (located on tester 4) and the respective pairs of probe pins (2), the comparators (drivers of tester 4 having their inputs connected to the electrical connection lines) detecting whether the voltage applied (applied when switches of relay 3 are in position to connect with power supplies



Art Unit: 2829

5) by the power supplies (5) to the respective electrodes (P) reaches a predetermined limit value, and wherein when the comparators (drivers of tester 4 having their inputs connected to the electrical connection lines) detect whether one of the voltage and a current reaches the predetermined limit value, the switch mechanisms (3) stop application of the voltage (applied when switches of relay 3 are in position to connect with power supplies 5) to the probe pins (2) by the drivers (located on tester 4).

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Bruno et al. (US 5,057,772) discloses a "Method and system for concurrent electronic component testing and lead verification".

Kwon et al. (US 5,070,297) discloses a "Full wafer integrated circuit testing device".

Iino et al. (US 6,777,967) discloses "Inspection method and inspection apparatus".

Takahashi (US 6,462,572) discloses a "Socket used for semiconductor device and testing system connected to socket through dual-transmission lines".

Swettlen et al. (6,897,666) discloses a "Embedded voltage regulator and active transient control device in probe head for improved power delivery and method".


Art Unit: 2829

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arleen M. Vazquez whose telephone number is 571-272-2619. The examiner can normally be reached on Monday to Friday, 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wael Fahmy can be reached on 571-272-1705. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AMV

  
VINH NGUYEN  
PRIMARY EXAMINER  
A.U. 2829  
05/01/06